

Jaurie Kral  
EPA



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

RECEIVED

OCT 20 2003

OFFICE OF AIR QUALITY

Dirk Kempthorne, Governor  
C. Stephen Allred, Director

October 24, 2003

**Certified Mail No.: 7099 3220 0009 1975 1273**

Mr. Rob Squires  
Nu-West Industries, Inc.  
3010 Conda Road  
Soda Springs, Idaho 83276

☒ Enf / Compliance  
☐ T5 Activity  
☐ Other

RE: AIRS No. 029-00031, Nu-West Industries, Inc., Rasmussen Ridge Mine  
Final Permit to Construct

Dear Mr. Squires:

The Idaho Department of Environmental Quality (Department) is issuing Permit to Construct (PTC) Number P-020327 for the Rasmussen Ridge Mine facility located near Soda Springs, Idaho in accordance with IDAPA 58.01.01.200 through 228 (*Rules for the Control of Air Pollution in Idaho*). This permit is effective immediately and is based on your permit application received on December 23, 2002 and as amended on September 12, 2003.

This permit does not release Nu-West Industries, Inc., from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

Larry Sims or Richard Elkins of the Pocatello Regional Office will contact you regarding a meeting with the Department to discuss the permit terms and requirements. The Department recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Mike Simon at (208) 373-0212 to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in cursive script that reads "Martin Bauer".

Martin Bauer  
Administrator  
Air Quality Division

MB/KH/sd

Permit No. P-020327

Enclosure

cc:      Tiffany Floyd, Pocatello Regional Office  
         Lisa Kronberg, Attorney Generals Office  
         Ken Hanna, Permit Writer  
         Mike Simon, Permit Program Coordinator  
         Marilyn Seymore, Permit Binder  
         Pat Rayne, AFS  
         Sherry Davis, Source File  
         Mary Anderson, Modeling Coordinator (Ltr Only)  
         Phyllis Heitman, (Ltr Only)  
         Reading File (Ltr Only)

Eric Hansen  
Senior Consultant  
MFG, Inc.  
19203 36<sup>th</sup> Avenue W., Suite 101  
Lynwood, WA 98036-5707



**Air Quality  
PERMIT TO CONSTRUCT**

**State of Idaho  
Department of Environmental Quality**

**PERMIT NO.:** P-020327

**AIRS FACILITY NO.:** 029-00031

**AQCR:** 061

**CLASS:** B

**SIC:** 1475

**ZONE:** 12

**UTM COORDINATE (km):** 468.8 , 4746.6

**1. PERMITTEE**

Nu-West Industries, Inc.

**2. PROJECT**

Rasmussen Ridge Mine

**3. MAILING ADDRESS**

3010 Conda Road

**CITY**

Soda Springs

**STATE**

ID

**ZIP**

83276

**4. FACILITY CONTACT**

Rob Squires

**TITLE**

Environmental/Safety Coordinator

**TELEPHONE**

(208) 574-2420 ext. 40

**5. RESPONSIBLE OFFICIAL**

Charles H. Ross

**TITLE**

General Manager

**TELEPHONE**

(208) 574-4381

**6. EXACT PLANT LOCATION**

SE ¼, NE ¼ Section 26, T6S, R43E (~ 19 air miles NE of Soda Springs)

**COUNTY**

Caribou

**7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**

Phosphate Mine

**8. GENERAL CONDITIONS**

This permit is issued according to IDAPA 58.01.01.200, *Rules for the Control of Air Pollution in Idaho*, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit is not transferable to another person, place, or piece or set of equipment. This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the *Rules for the Control of Air Pollution in Idaho*, IDAPA 58.01.01.200, et seq.

  
C. STEPHEN ALLRED, DIRECTOR  
DEPARTMENT OF ENVIRONMENTAL QUALITY

**DATE ISSUED:** October 24, 2003

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## Acronyms, Units, and Chemical Nomenclature

|                  |  |
|------------------|--|
| AFS              | AIRS Facility Subsystem  |
| AIRS             | Aerometric Information Retrieval System  |
| AQCR             | Air Quality Control Region   |
| ASTM             | American Society for Testing and Materials   |
| Btu              | British thermal unit   |
| CFR              | Code of Federal Regulations  |
| CO               | carbon monoxide  |
| DEQ              | Department of Environmental Quality  |
| EPA              | U.S. Environmental Protection Agency   |
| gpm              | gallons per minute   |
| HAPs             | hazardous air pollutants   |
| hp               | horsepower   |
| hr/yr            | hours per year   |
| IDAPA            | a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| km               | kilometer  |
| lb/hr            | pound per hour   |
| m                | meter(s)   |
| MMBtu            | million British thermal units  |
| MMBtu/hr         | million British thermal units per hour   |
| NESHAP           | National Emission Standards for Hazardous Air Pollutants   |
| NO <sub>2</sub>  | nitrogen dioxide   |
| NO <sub>x</sub>  | nitrogen oxides  |
| NSPS             | New Source Performance Standards   |
| PM               | particulate matter   |
| PM <sub>10</sub> | particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers                                       |
| ppm              | parts per million  |
| PSD              | prevention of significant deterioration  |
| PTC              | permit to construct  |
| PTE              | potential to emit  |
| <i>Rules</i>     | <i>Rules for the Control of Air Pollution in Idaho</i>   |
| SIC              | Standard Industrial Classification   |
| SO <sub>2</sub>  | sulfur dioxide   |
| SO <sub>x</sub>  | sulfur oxides  |
| TSP              | total suspended particulate  |
| T/yr             | tons per year  |
| UTM              | Universal Transverse Mercator  |
| VOC              | volatile organic compound  |

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020327**

|                   |                               |                          |                     |                         |
|-------------------|-------------------------------|--------------------------|---------------------|-------------------------|
| <b>Permittee:</b> | Nu-West Industries, Inc.      | <b>AIRS Facility No.</b> | <b>Date Issued:</b> | <b>October 24, 2003</b> |
| <b>Location:</b>  | Rasmussen Ridge, Soda Springs | 029-00031                |                     |                         |

**1. PERMIT TO CONSTRUCT SCOPE****Purpose**

This PTC modifies previously issued PTC No. 029-00031, issued February 5, 1995. The effective date of this permit is the date of signature by DEQ on the cover page.

**Regulated Sources**

Table 1.1 lists all sources of emissions regulated by this PTC. The tables include all operations associated with the South, Central, and North Rasmussen Ridge mining areas.

**Table 1.1 EMISSIONS SOURCES REGULATED BY THIS PERMIT**

| <b>Permit Section</b> | <b>Source Description</b>   | <b>Emissions Control(s)</b>         |
|-----------------------|---|-------------------------------------|
| 2                     | #5004 Shop/Office Generator, Caterpillar model 3412, 810 hp, 545 kW @ 100% load, typical fuel contains up to 0.59% sulfur (not ASTM No. 1 or 2) & No. 1 diesel is used in cold weather. Stack characteristics: 12 ft high, 8 inches in diameter, 4602 acfm @ 100% load. | Good combustion control             |
| 2                     | #5001 Standby Generator, Caterpillar 300, 375 hp, typical fuel contains up to 0.59% sulfur (not ASTM # 1 or 2) & No. 1 diesel is used in cold weather. Stack characteristics: 10 ft high, 8 inches in diameter.   | Good combustion control             |
| 3                     | Mobile equipment engaged in mining and hauling ore.   | Reasonable control of fugitive dust |
| 3                     | Ore handling operations; ore hopper, underground grizzly screen, conveyors, and rail car loading operations.  | Reasonable control of fugitive dust |
| 3                     | Mine roads and excavation areas.  | Reasonable control of fugitive dust |

Table 1.2 identifies all other air pollution-emitting sources at the facility that do not require specific permit conditions to demonstrate compliance with applicable air quality standards.

**Table 1.2 OTHER EMISSIONS SOURCES**

| <b>Permit Section</b> | <b>Source Description</b>   | <b>PTC Exemption</b> |
|-----------------------|---|----------------------|
|                       | #0002 Well Generator/Engine, 207 estimated hp, 155 kW. This unit is exempt per IDAPA 58.01.01.222 when operated less than 225 hours per year. |                      |
|                       | Light plants, typically 11-22 hp. These units are exempt and allowed unlimited hours of operation if less than 100 hp per IDAPA 58.01.01.222. |                      |

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020327**

|  |                                     |                                      |
|--|-------------------------------------|--------------------------------------|
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| <b>Location:</b> Rasmussen Ridge, Soda Springs |                                     |                                      |

## 2. STATIONARY COMBUSTION UNITS

### 2.1 Process Description

The stationary combustion units include stationary diesel engines used to provide electric power for site operations. This includes the #5004 Shop/Office Generator and the #5001 Standby Generator that are located in the Rasmussen Ridge Central Mine area.

### 2.2 Emissions Control Description

Emissions from the stationary combustion units are controlled by maintaining good combustion control.

## **Emissions Limits**

### 2.3 Emissions Limits

The PM/PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO emissions from the #5004 Shop/Office Generator and from the #5001 Standby Generator stacks shall not exceed any corresponding emissions rate limits listed in Table 2.1.

**Table 2.1 SHOP/OFFICE GENERATOR AND STANDBY GENERATOR EMISSIONS LIMITS**

| Source Description   | PM / PM <sub>10</sub> <sup>4</sup> |      | SO <sub>2</sub> |      | NO <sub>x</sub> |      | CO    |      | VOC   |      |
|--|------------------------------------|------|-----------------|------|-----------------|------|-------|------|-------|------|
|  | lb/hr                              | T/yr | lb/hr           | T/yr | lb/hr           | T/yr | lb/hr | T/yr | lb/hr | T/yr |
| #5004 Shop/Office Generator <sup>1</sup>                                     | 1.0                                | ---  | 1.13            | ---  | 13.7            | ---  | 1.0   | ---  | 1.0   | ---  |
| #5001 Standby Generator <sup>2</sup>   | 1.0                                | ---  | 1.0             | ---  | 11.63           | ---  | 2.51  | ---  | 1.0   | ---  |
| Total Annual Combined Emissions from Generators #5004 and #5001 <sup>3</sup> | ---                                | 3.62 | ---             | 4.95 | ---             | 60.1 | ---   | 8.8  | ---   | 3.3  |

<sup>1</sup> Based on the manufacturers hourly emission data included in Appendix A of DEQ's February 5, 1995 Technical Memorandum.

<sup>2</sup> Based on AP-42 emission factors, Section 3.3, October, 1996.

<sup>3</sup> As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates. The permittee shall not exceed the T/yr listed based on any consecutive 12-month period.

<sup>4</sup> Includes condensibles.

### 2.4 Opacity Limit

Emissions from the Shop/Office Generator stack, the Standby Generator stack, or any other stack, vent, or functionally equivalent opening associated with the stationary combustion units, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020327**

|  |                                    |                                      |
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| <b>Permittee:</b> Nu-West Industries, Inc.     | <b>AIRS Facility No.</b> 029-00031 | <b>Date Issued:</b> October 24, 2003 |
| <b>Location:</b> Rasmussen Ridge, Soda Springs |                                    |                                      |

***Operating Requirements***

**2.5 Generator Operations**

When the Office/Shop Generator or the Standby Generator are used, only one of these two units shall be operated at any time, except during periods of startup, shutdown, or maintenance.

**2.6 Hours of Operation Limits – #5001 Standby Generator**

The maximum annual hours of operation of the #5001 Standby Generator shall not exceed 7000 hr/yr, .

**2.7 Fuel Oil Sulfur Content**

No person shall sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur as required in IDAPA 58.01.01.728:

- ASTM Grade 1 fuel oil - 0.3% by weight.
- ASTM Grade 2 fuel oil - 0.5% by weight.

***Monitoring, Recordkeeping and Reporting Requirements***

**2.8 Monitor Generator Hours of Operation**

The permittee shall monitor and record the hours of operation of the #5001 Standby Generator on a monthly basis. A compilation of the most recent two years of records shall be kept onsite and made available to DEQ representatives upon request.

**2.9 Document Certification**

All documents, including but not limited to, records and supporting information submitted to DEQ, shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are all true, accurate and complete.



**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020327**

|  |                                    |                                      |
|--|------------------------------------|--------------------------------------|
| <b>Permittee:</b> Nu-West Industries, Inc.     | <b>AIRS Facility No.</b> 029-00031 | <b>Date Issued:</b> October 24, 2003 |
| <b>Location:</b> Rasmussen Ridge, Soda Springs |                                    |                                      |

### **3. MINING AND LOADING OPERATIONS**

#### **3.1 Process Description**

Open pit mining operations conducted at the South, Central and North Rasmussen Ridge Mine areas includes mobile equipment engaged in mining, hauling and placement of ore and overburden materials. Also included are loading operations at the off-site railcar load-out point, which includes an ore hopper, underground grizzly screen, conveyors, and a railcar loading hopper. All of the sources referred to above are fugitive dust sources.

#### **3.2 Emissions Control Description**

Emissions from mining operations are controlled by implementing good operating practices as presented in the Rasmussen Ridge Mining Project Fugitive Dust Control Plan.

### ***Operating Requirements***

#### **3.3 Reasonable Control of Fugitive Dust Emissions – Fugitive Dust Control Plan**

All reasonable precautions shall be taken to prevent PM from becoming airborne as required in IDAPA 58.01.01.651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of PM. To establish reasonable precautions, the Permittee shall develop, maintain and implement a Fugitive Dust Control Plan which identifies potential sources of fugitive dust and which establishes good operating practices for limiting the formation and dispersion of dust from those sources. The approved Fugitive Dust Control Plan is part of the terms and conditions of the permit.

The Fugitive Dust Control Plan (Plan) for the Rasmussen Ridge Mine shall, at a minimum, include information and establish requirements as follows:

1. A general description of the potential sources of fugitive dust from the facility.
2. Application of water from water trucks for control of dust in mining areas, haul roads and loadout areas. The Plan must establish specific, quantifiable, minimum frequencies for which the water must be applied. Water does not need to be applied when the surface is wet (i.e. during/following rainy conditions) or when reduced ambient temperatures may cause the water to freeze.
3. Application of suitable dust suppressant chemicals (e.g., magnesium chloride) to haul roads during the dry season. The Plan must specify a specific, quantifiable, minimum frequency for which the chemicals must be applied.
4. Drill rigs shall be equipped with water spray systems to reduce dust during drilling operations. The water sprays shall be used whenever drilling operations are being conducted. The water sprays do not need to be used when the ground is wet (i.e. during/following rainy conditions) or when reduced ambient temperatures may freeze the water in the system.
5. Establish procedures to minimize material drop heights and dust formation during truck loading operations and when dumping material from front-end loaders.

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020327**

|  |                                    |                                      |
|--|------------------------------------|--------------------------------------|
| <b>Permittee:</b> Nu-West Industries, Inc.     | <b>AIRS Facility No.</b> 029-00031 | <b>Date Issued:</b> October 24, 2003 |
| <b>Location:</b> Rasmussen Ridge, Soda Springs |                                    |                                      |

6. Establish procedures to minimize dust formation during conveying operations including the specific, quantifiable, maximum material drop height(s).
7. Training/orientation of employees about the Fugitive Dust Control Plan procedures.
8. The initial Fugitive Dust Control Plan shall be submitted to DEQ for review and approval no later than 60 days after the issuance date of this permit. After approval of the initial plan, the permittee may update the plan at any time by submitting the proposed changes to DEQ for review and approval. The updated plan shall not become effective until approved by DEQ. If DEQ deems that the change in the plan qualifies as permit to construct modification as defined in IDAPA 58.01.01.006, the procedures specified in IDAPA 58.01.01.200-228 shall be followed to make the change.
9. When in operation, the Permittee shall comply with the provisions in the approved Fugitive Dust Control Plan at all times. Whenever an operating parameter is outside the operating range specified by the plan, the permittee shall take corrective action as expeditiously as practicable to bring the operating parameter back within the operating range.
10. A copy of the Fugitive Dust Control Plan shall remain onsite at all times.

### ***Monitoring and Recordkeeping Requirements***

#### **3.4 Fugitive Dust Monitoring – Periodic Inspections**

The permittee shall conduct monthly facility-wide inspection of potential sources of fugitive dust emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive dust emissions are effective. If fugitive dust emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each weekly fugitive dust emission inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive dust emissions were present (if observed), any corrective action taken in response to the fugitive dust emissions, and the date the corrective action was taken. A compilation of the most recent two years of records shall be kept onsite and shall be made available to DEQ representatives upon request.

#### **3.5 Fugitive Dust Monitoring - Recordkeeping**

The permittee shall monitor and maintain records of the frequency and the method(s) used (i.e., water, chemical dust suppressants, etc.) to reasonably control fugitive dust emissions. A compilation of the most recent two years of records shall be kept onsite and shall be made available to DEQ representatives upon request.

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020327**

|  |                                    |                                      |
|--|------------------------------------|--------------------------------------|
| <b>Permittee:</b> Nu-West Industries, Inc.     | <b>AIRS Facility No.</b> 029-00031 | <b>Date Issued:</b> October 24, 2003 |
| <b>Location:</b> Rasmussen Ridge, Soda Springs |                                    |                                      |

**4. PERMIT TO CONSTRUCT GENERAL PROVISIONS**

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the *Rules for the Control of Air Pollution in Idaho*. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the *Rules for the Control of Air Pollution in Idaho*, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq., and the permittee is subject to penalties for each day of noncompliance.
2. The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.
3. The permittee shall allow the Director, and/or the authorized representative(s), upon the presentation of credentials:
  - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
  - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the Director.
4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
5. The permittee shall notify DEQ, in writing, of the required information for the following events within five working days after occurrence:
  - Initiation of Construction - Date
  - Completion/Cessation of Construction - Date
  - Actual Production Startup - Date
  - Initial Date of Achieving Maximum Production Rate - Production Rate and Date
6. If compliance testing is specified, the permittee must schedule and perform such testing within 60 days after achieving the maximum production rate, and not later than 180 days after initial startup. This requirement shall be construed as an ongoing requirement. The permittee shall not operate the source without testing within 180 days. If testing is not conducted within 180 days after initial startup, then each day of operation thereafter without the required compliance test constitutes a violation. Such testing must strictly adhere to the procedures outlined in IDAPA 58.01.01.157 and shall not be conducted on weekends or state holidays without prior written approval from DEQ. Testing procedures and specific time limitations may be modified by DEQ by prior negotiation if conditions warrant adjustment. DEQ shall be notified at least 15 days prior to the scheduled compliance test. Any records or data generated as a result of such compliance test shall be made available to DEQ upon request.

**AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-020327**

|  |                                    |                                      |
|--|------------------------------------|--------------------------------------|
| <b>Permittee:</b> Nu-West Industries, Inc.     | <b>AIRS Facility No.</b> 029-00031 | <b>Date Issued:</b> October 24, 2003 |
| <b>Location:</b> Rasmussen Ridge, Soda Springs |                                    |                                      |

7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.



## **Air Quality Permitting Statement of Basis**

**Permit to Construct No. P-020327**

**Nu-West Industries, Rasmussen Ridge Mine**

**AIRS Facility No. 029-00031**

*Prepared by:*

*Ken Hanna, Permit Writer*  
**AIR QUALITY DIVISION**

**October 20, 2003**

**FINAL**

## **1. PURPOSE**

The purpose for this memorandum is to document revisions made to Permit to Construct (PTC) No. 029-00031, dated February 5, 1995, issued to Rhone-Poulenc Basic Chemicals Company for the Rasmussen Ridge mine. This memorandum specifically documents changes to the PTC, but does not otherwise address the permit. For information regarding the technical basis for the original PTC, refer to the technical memorandum dated February 5, 1995.

## **2. FACILITY DESCRIPTION**

A facility is defined by IDAPA 58.01.01.006.37 as all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one (1) or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same Major Group (i.e. which have the same two-digit code) as described in the Standard Industrial Classification (SIC) Manual.

For permitting purposes, the Rasmussen Ridge Mine is the "facility", and each separate mining area (i.e., the South, Central and North Rasmussen Ridge mine areas, and the load-out area) is considered to be a separate activity at that facility. In addition, the Nu-West Rasmussen Ridge Mine is a separate facility from the Nu-West manufacturing facility located near Soda Springs; these two do not constitute one facility. This is because the two are not part of the same industrial grouping (i.e., the mine SIC is 1475 and the manufacturing facility SIC is 2874). In addition, these two do not "... approximate the common sense notion of a plant..." as outlined in Section IX of the preamble to the NSR rules (45 FR 52693, August 7, 1980).

## **3. FACILITY / AREA CLASSIFICATION**

The Rasmussen Ridge Mine, (i.e., the "facility" as defined above) is not a major facility in accordance with the definition given by IDAPA 58.01.01.006.55 since fugitive dust emissions may not be included in this major source determination. Note that 40 CFR Part 60 Subpart NN became a final rule on April 16, 1982.

Since this facility does not belong to a stationary source category which, as of August 7, 1980, is being regulated under Sections 111 or 112 of the Clean Air Act, then fugitive emissions are not included in determining whether it is a major facility.

The Rasmussen Ridge Mine is located in Caribou County which is designated as attainment or unclassifiable for all criteria air pollutants.

## **4. APPLICATION SCOPE**

On December 23, 2002, DEQ received an application from MFG, Inc. on behalf of Nu-West Industries, Inc. (Nu-West) to modify the PTC. The application requests a permittee name change and to add the Standby Generator to the PTC (in lieu of operating under exempt status). On April 10, 2003, the application was declared complete, and on May 22, 2003 and July 4, 2003, additional information was received from the Idaho Conservation League with regard to a Draft Environmental Impact Statement for the proposed North Rasmussen Ridge Mine. On June 2, 2003, Nu-West requested a draft permit prior to issuance, and on July 22, 2003, Nu-West provided a Fugitive Dust Control Plan for the Rasmussen Ridge Mining Project, as a supplement to the application, to address fugitive dust emissions. On August 6, 2003, DEQ provided Nu-West a draft permit for review, and on August 8, 2003 Nu-West responded with comments. A notice for a public comment period was published on August 14, 2003. On September 5,

comments were received from the Idaho Conservation League that the permit application was not complete. On September 11, 2003 and September 12, 2003 DEQ received additional permit application materials from Nu-West and on September 12, 2003 a notice was issued which extended the public comment period until October 14, 2003. Comments regarding the proposed permit were received from the Idaho Conservation League, the Greater Yellowstone Coalition, MFG, NU-West, and Davis Graham and Stubbs LLC. DEQ's responses to the Public Comments are included in Appendix C of the Statement Of Basis.

## **5. PERMITTING ANALYSIS**

### **5.1 *Emission Inventory Review***

Refer to the attached Engineering Memorandum in Appendix A.

### **5.2 *Modeling Review***

A modeling analysis was not required for this project. Please read the regulatory review section of this memo for further information.

### **5.3 *Regulatory Review***

This permit to construct is subject to the following permitting requirements:

#### **IDAPA 58.01.01.201 ..... Permit to Construct Required**

No owner or operator may commence construction or modification of any stationary source or facility without first obtaining a permit to construct from DEQ which satisfies the requirements of Sections 200 through 228 unless the source is exempted in any of Sections 220 through 223. In this case, a change in the operations for the Standby Generator (i.e., increased hours of operation) and construction of the proposed North Rasmussen Ridge mining area would be modifications of an existing facility (i.e., the permitted Rasmussen Ridge Mine). Therefore, the permit to construct requirements apply in this case.

#### **IDAPA 58.01.01.203 ..... Permit Requirements for New and Modified Stationary Sources - NAAQS**

For the proposed change in operation of the facility's generators, the estimated amount of CO and VOC would increase. In this case, since the estimated changes were small it was not necessary to revise the existing SCREEN modeling to demonstrate NAAQS compliance (See Section 6 below on permit condition 2.3). For the proposed North Rasmussen Ridge Mine operations, overall facility operations which generate fugitive dust emissions would remain similar to past operations. Therefore, to control fugitive dust emissions the modified PTC will emphasize the use of good operational practices and reasonable precautions to prevent and minimize the formation of fugitive dust. This will be accomplished by including operating conditions in the PTC which require the development and implementation of a site specific Fugitive Dust Control Plan. In addition, monitoring and recordkeeping requirements will be added to demonstrate the plan has been followed.

#### **IDAPA 58.01.01.203 & 210 ..... Demonstration of Preconstruction Compliance with Toxic Standards**

For the proposed facility modifications, an increase in the amount of toxic air pollutant emissions is not reasonably expected to occur. Generator emissions are expected to decrease since the larger Shop/Office Generator will operate less and, in its place, the smaller Standby Generator will operate more.

**40 CFR 52..... Prevention of Significant Deterioration**

The PSD rules are not applicable to this source. In 1995, it was determined by DEQ that the phosphate ore mining operation conducted at the Rasmussen Ridge Mine does not constitute a "Phosphate Rock Processing Plant," which is one of the 26 designated facilities within the PSD program.

**40 CFR 60, Subpart NN..... New Source Performance Standards (NSPS) for Phosphate Rock Plants**

40 CFR Part 60, Subpart NN does not apply to the Rasmussen Ridge Mine. Although the Rasmussen Ridge Mine meets the definition of a Phosphate Rock Plant, Subpart NN does not apply since the mine does not utilize any of the affected facilities listed in 60.400(a)(2). Details are provided as follows:

As given by 60.400(a)(2), the provisions of this subpart apply to the following affected facilities used in phosphate rock plants which have a maximum plant production capacity greater than 4 tons/hr: dryers, calciners, grinders, and ground rock handling and storage facilities, except those facilities producing or preparing phosphate rock solely for consumption in elemental phosphorus production. Note that the Rasmussen Ridge Mine does not utilize any of the affected facilities listed above.

As defined by 60.401(a), a Phosphate Rock Plant is any plant which produces or prepares phosphate rock product by any or all of the following processes: mining, beneficiation, crushing, screening, cleaning, drying, calcining, and grinding. The Rasmussen Ridge Mine meets the definition of a Phosphate Rock Plant since it produces/prepares phosphate rock by mining and screening.

**40 CFR 60, Subpart OOO..... NSPS for Nonmetallic Mineral Processing Plants**

The provisions of this subpart, as given by 60.670(a)(2), do not apply to facilities located in underground mines and stand-alone screening operations at plants without crushers or grinding mills. Therefore, this subpart does not apply to the Rasmussen Ridge Mine.

## 5.4 FEE Review

Nu-West paid the \$1,000 application fee as required in IDAPA 58.01.01.224 on March 10, 2003. A permit to construct processing fee of \$2500 will be required in accordance with IDAPA 58.01.01.225 because the increase in emissions from the modification was 9.4 T/yr as indicated in Table 8.1 (See Appendix B for details). The Rasmussen Ridge mining facility is not a major facility as defined in IDAPA 58.01.01.008.10, therefore, registration fees are not applicable in accordance with IDAPA 58.01.01.387.

**Table 5.1 EMISSIONS INVENTORY**

| <b>Emissions Inventory</b> |   |  |                                       |
|----------------------------|---|--|---------------------------------------|
| <b>Pollutant</b>           | <b>Annual Emissions Increase (T/yr)</b> | <b>Annual Emissions Reduction (T/yr)</b> | <b>Annual Emissions Change (T/yr)</b> |
| NO <sub>x</sub>            | 0.0                                     | 0  | 0.0                                   |
| SO <sub>2</sub>            | 0.0                                     | 0  | 0.0                                   |
| CO                         | 6.7                                     | 0  | 6.7                                   |
| PM <sub>10</sub>           | 0.0                                     | 0  | 0.0                                   |
| VOC                        | 2.7                                     | 0  | 2.7                                   |
| TAPS/HAPS                  | 0.0                                     | 0  | 0.0                                   |
| <b>Total:</b>              | <b>9.4</b>                              | <b>0</b>                                 | <b>9.4</b>                            |
| <b>Fee Due</b>             | <b>\$ 2500.00</b>                       |  |                                       |



## **6. PROPOSED PERMIT CHANGES**

This section of the Statement of Basis describes the new permit conditions that have been added/changed to the previous permit based on the results of this permitting analysis.

### **Permit to Construct Scope (Section 1)**

This new section was added to the permit for consistency with the current format for permits. This section provides a description of the sources and activities at the facility which are addressed by the permit. The description information provided reflects the information provided by the applicant and it is the basis upon which the permit was written. The information provided in Section 1 of the PTC is provided "for information purposes only" and does not represent enforceable permit terms or conditions. Note that the horsepower of the Shop/Office Generator was changed from 483 to 810 in Section 1 of the PTC to reflect the actual size of the unit. Note that the emission estimates and modeling in the February 5, 1995 Technical Memorandum are not affected by this change.

### **Stationary Combustion Units (Section 2)**

#### **2.3 Emissions Limits**

In section 2 of the permit, short term emission limits (i.e., lb/hr) were added for the #5001 Standby Generator. In addition, the total annual generator emissions limit for CO was raised from 2.1 to 8.8 T/yr, and the total annual generator emissions limit for VOC was raised from 0.57 to 3.3 T/yr. The reason for the change is because the CO and VOC emission estimates provided for the Standby Generator, at 7000 hr/yr, are higher than for the Shop/Office Generator, and this difference is because different emission factors were used to estimate emissions for the 2 generators. The emissions estimates for the Standby Generator are higher (even though the hp is less) since they are based on emission factors from AP-42, Section 3.3 (October 1996), whereas the estimates for the Shop/Office Generator are based on specific emissions data provided for a 3412 CAT engine, as included in the permit application and Appendix A of the Department's February 5, 1995 Permit Technical Memorandum. The 7000 hr/yr limit was requested by Nu-West to limit the emissions increase to less than 10 tons per year which resulted in a reduced PTC processing fee. See Appendix B for details. Because the emission limit increases for CO and VOC are small, it was not necessary to revise the modeled estimates to show compliance with the NAAQS. For example, the February 5, 1995 modeled 8-hr impact for CO was  $6.2 \mu\text{g}/\text{m}^3$  based on an emission rate of 0.48 lb/hr, which was well below the corresponding NAAQS of  $10,000 \mu\text{g}/\text{m}^3$ . Compliance with the NAAQS is still demonstrated based on the modeling previously conducted for this activity.

#### **2.5 Generator Operations**

For purposes of maintaining compliance with the NAAQS as a result of generator operations, a permit condition was added which allows only one generator to be operated at a time. This was done since modeling has not been conducted to demonstrate NAAQS compliance when both power generators operate simultaneously (i.e., the Shop/Office and the Standby Generators).

#### **2.6 Hours of Operation Limits - #5001 Standby Generator**

For purposes of limiting the Standby Generator emission increase to less than 10 T/yr, permit conditions to limit the hours of operation to not more than 7000 hr/yr and to monitor and record the monthly hours of operation were added. Compliance with the PTC emission limits may be determined by using the Department's emission estimation methods used in the permit analyses. For the Shop/Office Generator, the emission estimation methods and emission factors may be found in the Department's February 5, 1995 Permit Technical Memorandum, and for the Standby Generator they may be found in Appendix A of this document.

### **2.7 Fuel Oil Sulfur Content**

The fuel oil sulfur content rules given by IDAPA 58.01.01.728 apply to this facility, therefore, it was added to the permit. Note that the permit application indicates fuel with up to 0.59% sulfur may be used. The PTC does not preclude the use of this particular fuel, however, it is important for the facility to note that it must not be sold (bought), distributed or used "as ASTM Grade 1 or 2 fuel oil" in accordance with IDAPA 58.01.01.728.

### **Mining and Loading Operations (Section 3)**

#### **3.3 Reasonable Control of Fugitive Emissions – Dust Control Plan**

For purposes of complying with the NAAQS and IDAPA 58.01.01.651, emphasis was placed on the development of good operational practices and reasonable precautions for limiting the formation and dispersion of fugitive dust from the facility. This was accomplished by adding a permit condition which requires the development and implementation of a site specific Fugitive Dust Control Plan for the entire facility. Specific minimum requirements for the plan were specified in the permit condition to ensure that all critical activities which generate fugitive dust will be adequately covered by the plan.

#### **3.4 & 3.5 Fugitive Dust Monitoring**

To demonstrate compliance with the Fugitive Dust Control Plan requirements, monitoring and recordkeeping conditions were added to the permit. This includes requirements for conducting weekly facility-wide inspections of potential sources of fugitive emissions, and monitoring/recording the frequency and methods used to reasonably control fugitive dust emissions. To emphasize the importance of compliance, these permit monitoring conditions were based on the more stringent requirements typically found in Tier I/Title V Operating Permits.

## **7. PUBLIC COMMENT**

An opportunity for public comment on the Nu-West PTC application was noticed in the Caribou County Sun paper and on De's web-site on April 17, 2003. On May 29, 2003, DEQ received a request from a member of the public for a 30 day public comment period, and a public comment period was held from August 14, 2003 through October 14, 2003.

## **8. RECOMMENDATION**

Based on the review of the application materials, and all applicable state and federal regulations, staff recommend that DEQ issue a Permit to Construct to Nu-West Industries. An opportunity for public comment on the air quality aspects of the proposed permit was provided from August 14, 2003 through October 14, 2003 in accordance with IDAPA 58.01.01.209, and the project does not involve PSD requirements.

KLH/sd      Permit No. P-020327

## **Appendix A**

### ***Engineering Memorandum***

### ***Emission Estimate Calculations***

### ***Nu-West Industries, Rasmussen Ridge Mine***



## **Engineering Memorandum**

May 15, 2003

**Nu-West Industries  
Rasmussen Ridge Mine  
Soda Springs**

P-020237

*Prepared by:*

*Darrin Mehr, Associate Air Quality Engineer  
Division of Technical Services*

## Acronyms, Units, and Chemical Nomenclatures

|                  |  |
|------------------|--|
| CO               | carbon monoxide  |
| DEQ              | Department of Environmental Quality  |
| EPA              | Environmental Protection Agency  |
| fps              | feet per second  |
| ft               | feet   |
| HAPs             | Hazardous Air Pollutants   |
| hp               | horsepower   |
| IDAPA            | A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| K                | Kelvin   |
| lb/hr            | pound per hour   |
| NO <sub>x</sub>  | nitrogen oxides  |
| O <sub>3</sub>   | ozone  |
| Pb               | lead   |
| PM               | Particulate Matter   |
| PM <sub>10</sub> | Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers                                       |
| PTC              | Permit to Construct  |
| rpm              | revolutions per minute   |
| <i>Rules</i>     | <i>Rules for the Control of Air Pollution in Idaho</i>   |
| SO <sub>2</sub>  | sulfur dioxide   |
| SO <sub>x</sub>  | sulfur oxides  |
| TAPs             | toxic air pollutants   |
| TOC              | Total Organic Compounds  |
| T/yr             | Tons per year  |
| VOCs             | Volatile Organic Compounds   |

## PURPOSE

The purpose for this memorandum is to verify the validity of the emissions estimates from the PTC modification application.

## PROJECT DESCRIPTION

Nu-West Industries (Nu-West) is proposing to modify the existing PTC to add a backup (standby) generator for the Rasmussen Ridge Mine. During periods when less electrical power is needed, this smaller backup generator, No. 5001, would operate instead of the primary generator, No. 5004. The No. 5001 backup generator burns diesel fuel. It is listed as a model 300 manufactured by Caterpillar.

## TECHNICAL ANALYSIS

### *Process Description*

The Rasmussen Ridge Mine is remotely located. The facility's operations require the use of generator sets to produce electrical power. The facility has two diesel-burning generators to produce primary electrical power for the facility. Generator No. 5004 is the primary producer of electrical power for shop and office areas. Generator No. 5001 is a standby generator that typically operates during periods when operations are not at full scale, typically during weekends. Generator set No. 0002 powers a well pump. Nine small generator sets to provide power to operate area lighting plants. Each of the area lighting plant generators ranges in size from 11 hp to 27 hp.

### *Equipment Listing*

Existing generator and lighting equipment at the facility is listed in Tables 1 and 2.

**TABLE 1: LIGHT PLANT DIESEL ENGINES**

| <b>SOURCE<br/>IDENTIFICATION NUMBER</b> | <b>HORSEPOWER RATING<br/>(HP)</b> |
|---|-----------------------------------|
| 8652                                    | 11                                |
| 8682                                    | 20                                |
| 8692                                    | 27                                |
| 8802                                    | 27                                |
| 8812                                    | 27                                |
| 8822                                    | 27                                |
| 8872                                    | 27                                |
| 0031                                    | 27                                |
| 5003                                    | 27                                |

**TABLE 2: ELECTRICAL GENERATORS**

| <b>SOURCE<br/>IDENTIFICATION NUMBER</b> | <b>HORSEPOWER RATING<br/>(hp)</b> |
|---|-----------------------------------|
| 0002 (well pump)                        | 207                               |
| 5001 (standby)                          | 375                               |
| 5004 (office and shop)                  | 810                               |

## Emission Estimates

Only criteria emissions from standby generator No. 5001 were reviewed for this project. The Stationary Source Program Office has stated that HAPs and TAPs reviews are not necessary for this project—only criteria air pollutants. Emissions were estimated on several bases: potential hourly, actual annual based on past operations, and unrestricted potential annual. Emissions are listed below in Table 3, and physical parameter information is listed below in Table 4. See Attachment 1 to review the emissions estimate spreadsheet. Emission factors were obtained from AP-42.<sup>1</sup>

The AP-42 resource does not contain any emissions factors for lead emissions from burning No. 2 distillate fuel in internal combustion engines.

**TABLE 3. POTENTIAL EMISSIONS FROM STANDBY GENERATOR NO. 5001**

| Pollutant                       | PM   | PM <sub>10</sub> | NO <sub>x</sub> | SO <sub>x</sub> | CO    | O <sub>3</sub> /VOC | Pb | HAPs | TAPs |
|---------------------------------|------|------------------|-----------------|-----------------|-------|---------------------|----|------|------|
| Potential Emission Rate (lb/hr) | 1.65 | 0.83             | 11.63           | 0.77            | 2.51  | 0.94                | NA | NA   | NA   |
| Actual Emission Rate (T/yr)     | 2.44 | 1.22             | 17.16           | 1.13            | 3.70  | 1.39                | NA | NA   | NA   |
| Potential Emission Rate (T/yr)  | 7.23 | 3.61             | 50.92           | 3.37            | 10.97 | 4.13                | NA | NA   | NA   |

**TABLE 4. STACK PARAMETERS FOR GENERATOR NO. 5001**

| Emission Unit          | Stack Height (ft) | Stack Diameter (ft) | Gas Velocity (fps) | Stack Temp. (K) |
|------------------------|-------------------|---------------------|--------------------|-----------------|
| 5001 Standby Generator | 10                | 0.67                | Not provided       | Not provided    |

## Source Testing

No source testing is recommended for this emissions unit.

No source test reports were reviewed and incorporated in the analysis for this permitting action.

<sup>1</sup> Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: *Stationary Point and Area Sources*, Section 3.3-Gasoline and Diesel Industrial Engines, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, NC, USA, October 1996.

## **Operating Parameters**

### **Standby Generator No. 5001**

#### **Operational Factors**

The load factor (or the ratio of the load applied to the generator engine to the generator engine's maximum rated load) is an operational parameter that could affect emission rates. Emissions rates are directly related to the load factor of the engine. Engine rpm and fuel consumption are surrogate parameters for load factor. However, emissions estimates were conducted for full load operating conditions for this project. Actual hourly emissions are assumed to equal potential hourly emissions at full load operation.

This permitting analysis was performed for a worst-case operating scenario. There are no operating parameters that need to be monitored to comply with the potential emissions requested by Nu-West Industries. Operating hours may be tracked to quantify actual emissions on a daily, monthly, or other time basis, as desired.

The engines at the facility can operate on No.1 and No. 2 distillate fuels that meet the sulfur content limits of 0.3 weight % and 0.5 weight %, respectively. The engines can also operate on distillate fuel that contains 0.59% by weight of sulfur. One might believe that the engine's estimated SOx emissions would be dependent upon the sulfur content in the fuel. However, this is not the case, because the SOx emission factor listed in AP-42, Section 3.3, is not dependent upon the sulfur content of the fuel combusted. Emissions estimates for SOx are not affected by this factor because of the method of emission calculation.

DAM/bm

P-020327



**Attachment 1**

**DEQ Emissions Spreadsheet**

**Of Criteria Air Pollutants**

**NU-WEST INDUSTRIES**  
**Rasmussen Ridge Mine, Soda Springs**  
**P-020327**

**Generator Engine Emissions**

**Source:**

Generator Engine # 5001

Purpose: Standby Generator

Fuel Diesel

**Operating Information**

| Rated<br>Horsepower<br>(hp) | Load<br>Factor<br>(dimensionless) | Daily<br>Hours of<br>Operation<br>(hr/day) | Actual<br>Annual<br>Hours<br>(hr/yr) | Potential<br>Annual<br>Hours<br>(hr/yr) |
|-----------------------------|-----------------------------------|--|--------------------------------------|---|
| 375                         | 1.0                               | 24   | 2952                                 | 8760                                    |

**EMISSION FACTORS: CRITERIA AIR POLLUTANTS FOR DIESEL  
COMBUSTION**

Source: AP-42, Section 3.3, released 10/96

| NO <sub>x</sub> | CO           | SO <sub>x</sub> | PM-10        | PM           | TOCs<br>(or VOCs) |
|-----------------|--------------|-----------------|--------------|--------------|-------------------|
| (lb/hp - hr)    | (lb/hp - hr) | (lb/hp - hr)    | (lb/hp - hr) | (lb/hp - hr) | (lb/hp - hr)      |
| 0.031           | 6.68E-03     | 2.05E-03        | 0.0022       | 0.0044       | 2.51E-03          |

**Criteria Air Pollutant Emissions Rates**

| Time Period/Case                     | NO <sub>x</sub> | CO    | SO <sub>x</sub> | PM-10 | PM    | TOCs<br>(or VOCs) |
|--------------------------------------|-----------------|-------|-----------------|-------|-------|-------------------|
| Hourly <sup>1</sup> (lb/hr)          | 11.625          | 2.51  | 0.77            | 0.83  | 1.65  | 0.94              |
| Daily (lb/day)                       | 279.00          | 60.12 | 18.45           | 19.80 | 39.60 | 22.63             |
| Actual Annual <sup>2</sup> (T/yr)    | 17.16           | 3.70  | 1.13            | 1.22  | 2.44  | 1.39              |
| Potential Annual <sup>2</sup> (T/yr) | 50.92           | 10.97 | 3.37            | 3.61  | 7.23  | 4.13              |

1. Hourly emissions [lb/hr] = Emission Factor (lb/hp - hr) X Rated Engine Horsepower (hp)

2. Annual emissions [T/yr] = Hourly Emission Rate (lb/hr) X Operating Hours (hr/yr) / 2000 lb per ton

## **Appendix B**

### ***CO and VOC Emission Estimates***

#### ***Nu-West Industries, Rasmussen Ridge Mine***

An operational limit of 7000 hrs/yr was requested by Nu-west to reduce emissions allowed and, therefore, reduce the PTC Processing Fees required for this permit action. Since the CO and VOC estimated emission rates are higher for the #5001 Standby Generator, annual emissions at 7000 hr/yr are estimated as follows using the same methods used in the PTC application:

$$CO = \left( \frac{0.00668 \text{ lb}}{\text{hp} - \text{hr}} \right) \left( \frac{7000 \text{ hr}}{\text{yr}} \right) \left( \frac{375 \text{ hp}}{2000 \text{ lb}} \right) = 8.77 \text{ tons / yr}$$

$$VOC = \left( \frac{0.00251 \text{ lb}}{\text{hp} - \text{hr}} \right) \left( \frac{7000 \text{ hr}}{\text{yr}} \right) \left( \frac{375 \text{ hp}}{2000 \text{ lb}} \right) = 3.29 \text{ tons / yr}$$

Determine the increase in allowable emissions for this permit modification:

Total Tons Increase = CO Tons Increase + VOC Tons Increase

$$= (8.8 - 2.1) + (3.3 - 0.57)$$

$$= 6.7 + 2.7$$

$$= 9.4 \text{ Tons/yr}$$

## **APPENDIX C**

### **Response To Public Comments**

**AIRS Facility No. 029-00031**

**Nu-West Rasmussen Ridge Mine**

October 24, 2003

**STATE OF IDAHO  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
RESPONSE TO PUBLIC COMMENTS  
ON THE PROPOSED PERMIT TO CONSTRUCT FOR THE  
NU-WEST INDUSTRIES RASMUSSEN RIDGE MINE, SODA SPRINGS, IDAHO**

**Introduction**

As required by IDAPA 58.01.01.209 of the *Rules for the Control of Air Pollution in Idaho (Rules)*, the Idaho Department of Environmental Quality (DEQ) provided for public notice and comment on the proposed permit to construct for the Nu-West Industries, Inc. Rasmussen Ridge Mine located near Soda Springs, Idaho. Public comment packages, which included the application materials, the permit, and associated technical memoranda, were made available for public review at the Soda Springs Public Library, and the DEQ's State Office in Boise and Regional Office in Pocatello. The public comment period was provided from August 12, 2003 through October 14, 2003. Written comments were received. Those comments regarding the air quality aspects of the permit are paraphrased below with DEQ's response immediately following.

**Public Comments and DEQ Responses**

Responses to the comments received from the Idaho Conservation League on September 5, 2003 are provided below:

**Comment 1:** I write to inform you that the PTC application that Nu-West Industries submitted to DEQ regarding their North Rasmussen Ridge mine was not complete. For the reasons outlined below, DEQ was in error when it concluded that the application was complete. In light of the omissions of information in this application, the Idaho Conservation League is not able to fully analyze the application and the proposed permit that is currently out for public comment. We respectfully request that DEQ withdraw the proposed PTC that is out for public comment, work with Nu-West to complete the application then re-notice a PTC for this mine. DEQ rules governing the "Application Procedures" for a Permit to Construct are articulated in Idaho Administrative Code at IDAPA 58.01.01.202. Readers are instructed that certain information must be provided as part of the application [IDAPA 58.01.01.202 and 202.01(a) were reprinted]. Nu-West's application, which we received as part of a Public Records Request, is deficient (i.e., not complete) for the following reasons:

1. The application lacks any drawings showing the design of the facility.
2. The application lacks any and all information regarding the anticipated amount of fugitive emissions of criteria pollutants that will result from the development of this facility.
3. The application lacks any and all information regarding the amount of secondary emissions associated with this facility.
4. The application lacks a schedule for construction of the facility.

The four areas of deficiency outlined above are all mandatory components of any PTC application of this nature, as noted above. As you are aware, the Idaho Conservation League has been involved with the issuance of this proposed PTC for some time. We are interested in conducting a thorough analysis of the impacts that this project will have on the air quality in the area surrounding the mine. As a result of missing information in the company's PTC application, we

are unable to conduct this analysis. We respectfully request that DEQ withdraw the proposed PTC that is out for public comment, work with Nu-West to complete the application then re-notice a PTC for this mine.

**Response to 1:** Permit to Construct (PTC) No. P-020327 for the Rasmussen Ridge Mine was based, in part, on information contained in the March 2003 Draft Environmental Impact Statement (DEIS) for the project. As the DEIS was not submitted as part of the original permit application, DEQ notified Nu-West of the need to provide additional application materials along with the required certification statement. On September 12, 2003, the DEQ received additional PTC application materials to DEQ to meet the requirements of IDAPA 58.01.01.202, and DEQ extended the PTC public comment period to October 14, 2003 to provide access to the amended permit application.

**Responses to the comments received from the Idaho Conservation League on September 15, 2003 are provided below:**

**Comment 2:** The proposed permit is deficient, or is premised on deficiencies in the application and/or technical memo/statement of basis, in a number of critical areas. Issuance of this permit will violate IDAPA 58.01.01 202.01(a), 58.01.01.203.02, and 58.01.01.650 et seq.

**Response to 2:** PTC No. P-020327 meets the PTC requirements of IDAPA 58.01.01.200-228, which includes IDAPA 58.01.01.650. Refer to the detailed responses provided below.

**Comment 3:** DEQ has failed to define the proposed North Rasmussen Ridge Mine as a support facility to Nu-West's Conda processing plant. As a result, issuance of this permit will violate IDAPA 58.01.01 202.01(c), 58.01.01.205 et seq, and 58.01.01.225. Additional state and federal air quality rules are likely violated here as well.

**Response to 3:** It has been determined by DEQ that the Rasmussen Ridge Mine is not a support facility to Nu-West's Conda processing plant, and PTC No. P-020327 for the Rasmussen Ridge Mine meets the PTC requirements of IDAPA 58.01.01.200-228. Refer to the detailed response to Comment No. 14.

**Comment 4:** As a result of the deficiencies outlined in our attached comments, we are unable to conduct a thorough analysis of this proposed permit. We believe that the only acceptable course of action is for DEQ to request that Nu-West provide the required information, that the proposed permit be re-crafted to incorporate this information and that the public be given another opportunity to review and comment on this permit prior to issuance to Nu-West.

**Response to 4:** As noted in the response to Comment No. 1, the DEQ notified Nu-West of the need to provide additional certified application materials. On September 12, 2003, the DEQ received additional PTC application materials, and DEQ extended the PTC public comment period to October 14, 2003 to provide access to the amended permit application.

**Comment 5:** Failure to include critical information in application, statement of basis and permit The PTC application submitted to DEQ regarding their North Rasmussen Ridge Mine was not complete. DEQ was in error when it concluded the application was complete. In light of the omitted information, it is not possible to fully analyze the application and proposed permit [see comment directly above]. ...The application shall include all of the information required by [IDAPA

**58.01.202.01(a)]. Nu-West's PTC application which we received as part of a Public Records Request, is deficient – i.e., not complete – for at least the following reasons addressed by Comment Nos. 6 – 11.**

**Response to 5:** Refer to the response for Comment No. 4.

**Comment 6:** The application lacks any drawings showing the design of the facility.

**Response to 6:** The additional/certified application materials received by DEQ from Nu-West on September 12, 2003 contain drawings of the proposed operations at the facility. These drawings are contained in the DEIS.

**Comment 7:** The application lacks any and all information regarding the anticipated amount of fugitive emissions of criteria pollutants that will result from the development of this facility.

**Response to 7:** The additional application materials received by DEQ from Nu-West on September 12, 2003 contain information regarding fugitive emissions associated with the proposed operations of the facility.

**Comment 8:** The application lacks any and all information regarding the amount of secondary emissions associated with this facility.

**Response to 8:** Secondary emissions are defined by IDAPA 58.01.01.007.09 as "emissions which would occur as a result of the construction, modification, or operation of a stationary source or facility, but do not come from the stationary source or facility itself. Secondary emissions must be specific, well defined, quantifiable, and affect the same general area as the stationary source, facility, or modification which causes the secondary emissions. Secondary emissions include emissions from any offsite support facility which would not be constructed or increase its emissions except as a result of the construction or operation of the primary stationary source, facility or modification. Secondary emissions do not include any emissions which come directly from a mobile source regulated under 42 U.S.C. Sections 7521 through 7590." Based on this definition and the application information received on September 12, 2003, there are no apparent secondary emissions associated with the Rasmussen Ridge Mine. This is because "offsite" emissions, such as those from the tippie area operations and the tippie haul road area, have been included in the estimate of emissions from the facility. Therefore, estimates of emissions from those sources have already been accounted for as part of the "facility."

**Comment 9:** The application lacks any information about the manner in which the mining and hauling portion of the facility will be operated and emissions controlled.

**Response to 9:** The certified DEIS received by DEQ from Nu-West on September 12, 2003 describes the mining and hauling operations at the facility and how emissions from these operations will be controlled.

**Comment 10:** The application lacks a schedule for construction of the facility.

**Response to 10:** The additional application materials DEQ received from Nu-West on September 12, 2003 provide a schedule of construction for the facility.

**Comment 11:** The five areas of deficiency outlined above are all mandatory components of any PTC application of this nature, as noted above. Thus, on purely procedural grounds this application is not complete and the permit is deficient. Thus, this proposed permit cannot be finalized. The mandatory components of the PTC



**application are required for good reason. Without this information it is impossible to determine the impact that this facility will have on air quality**

**Response to 11:** Additional/certified application materials were received by DEQ from Nu-West on September 12, 2003, thereby providing a complete application for the proposed project. This information provides the basis for PTC No. P-020327. The additional application materials received did not necessitate a change to the proposed permit which was already offered for public comment. Therefore, the permit was not changed and the comment period was extended to provide additional time for comments which include the additional/certified application materials.

**Comment 12:** **National Ambient Air Quality Standards (NAAQS)** Absent any information in the application, statement of basis or the proposed permit regarding the anticipated emissions from the mining and hauling activities portion of this facility, a work schedule (to determine temporal distribution of the emissions) and a map or diagram of the facility it is impossible to determine if the facility will (or will not) violate the National Ambient Air Quality Standards at the fence line. We are interested in conducting a thorough analysis of the impacts that this project will have on the air quality in the area surrounding the mine; we are especially interested in determining whether or not this facility will violate NAAQS at the fence line. As a result of missing information in the company's PTC application we are unable to conduct this analysis.

**Response to 12:** The certified PTC application materials DEQ received from Nu-West on September 12, 2003 provide information regarding emissions from the facility. The facility has submitted emission rates for PM<sub>10</sub> fugitive emissions as well as maps of the area and mine. DEQ did not require the facility to submit work schedules because it is assumed that these operations occur 24 hours per day, 7 days per week. This is a correct assumption absent any federally enforceable requirement in the permit for work schedules. The facility has submitted sufficient information for DEQ to determine whether modeling is required.

**Comment 13:** Given the lack of information noted above, it is apparent that DEQ has likewise been unable to perform an analysis or modeling to determine if this facility will violate NAAQS. Issuance of a PTC by DEQ without ensuring that this mine will not cause or significantly contribute to a NAAQS violation is in violation of DEQ rules [58.01.01.203]. The proposed permit is in violation of 58.01.01.203.02 and, thus, cannot be finalized.

**Response to 13:** According to IDAPA 58.01.01.203, no permit to construct shall be granted for a new or modified stationary source unless the applicant shows to the satisfaction of the Department that it would not cause or significantly contribute to a violation of any ambient air quality standard. The requirement for modeling for the demonstration of compliance is determined on a case by case basis. Based on the information presented, DEQ has determined, for this situation, that modeling is not necessary to determine compliance with the NAAQS. DEQ made this decision based on the following information: (1) current PM<sub>10</sub> background concentration in the area is very low, (2) emission factors for fugitive dust from this source category are somewhat uncertain, (3) model predictions for this type of source are highly uncertain, and require the application of deposition in the model which adds additional uncertainty to the final results. Because of these great uncertainties for this case, DEQ determined it would be more appropriate to require fugitive dust control measures in the permit than to perform a modeling analysis. DEQ has determined that these control measures demonstrated, to the satisfaction of the Department, that this facility would not cause or significantly contribute to a violation of any ambient air quality standard.

**Comment 14:**

**Support Facility** DEQ has failed to properly identify the nexus between Nu-West's proposed mine and its nearby Conda phosphate processing plant. The North Rasmussen Ridge Mine is properly defined as a support facility of the Conda processing plant and DEQ needs to make this determination and ensure that proper permitting is established prior to the issuance of a PTC for the mine. In the statement of basis DEQ appears to dismiss a "support facility" relationship by citing that the mine and the processing plant do not have the same SIC codes. This logic is flawed and the conclusion is incorrect. ...It is improper to separate these two facilities based on SIC codes. Specific references are provided to the following documents: 45 FR 52695, 8/7/80; 62 FR 30289, 6/3/97; letter from EPA Region 5 to Wisconsin DNR, 8/25/99; and memo from EPA Region 8 to Utah DEQ, 5/21/98. As the facts of this matter and the above discussion clearly demonstrates, the Nu-West mine and processing plant are functionally interdependent, under common control, connected to each other though not adjacent, and 100% of the product from the support facility (the mine) is sent to the Conda plant. Thus, it is clear that these facilities need to be considered as a single facility for permitting purposes.

**Response to 14:**

Do the Mine and CPO constitute "one facility?" The term "facility" is defined by IDAPA 58.01.01.006.37 as: *"All of the pollutant-emitting activities which belong to the same industrial grouping, are located on one (1) or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same Major Group (i.e. which have the same two-digit code) as described in the Standard Industrial Classification Manual."*

Consistent with the PSD regulations and interpretation, note that this definition requires all three of the following factors to exist in order for the Mine and CPO to constitute a single "facility." All of the pollutant-emitting activities must:

1. belong to the same industrial grouping,
2. be located on one or more contiguous or adjacent properties, and
3. be under common control of the same person (or persons under common control)

In this instance, the support facility argument is irrelevant, as all three criteria do not apply for these facilities. As the commenter has already conceded, the two facilities are not adjacent. It follows that, as all three criteria are not satisfied, the two facilities cannot be considered as one.

However, there is value in providing additional detail for the public record. Accordingly, the remainder of this response clarifies why the two facilities are not contiguous or adjacent. In Section IX of the preamble to the final PSD Rule (45 FR 52695, August 7, 1980), EPA provides the following information regarding how far apart activities which encompass a long line operation, such as a railroad, must be in order to be treated separately:

*Many commenters urged EPA to clarify the extent to which the final definition of those terms encompasses the activities along a "long-line" operation, such as a pipeline or electrical power line. For example, some urged EPA to add to the definition the provision that the properties for such operations are neither contiguous nor adjacent. To add such a provision is unnecessary. EPA has stated in the past and now confirms that it does not intend "source" to*

*encompass activities that would be many miles apart along a long-line operation. For instance, EPA would not treat all of the pumping stations along a multistate pipeline as one "source." EPA is unable to say precisely at this point how far apart activities must be in order to be treated separately. The agency can answer that question only through case-by-case determinations. One commenter asked, however, whether EPA would treat a surface coal mine and an electrical generator separated by 20 miles and linked by a railroad as one "source," if the mine the generator, and the railroad were all under common control. EPA confirms that it would not. First, the mine and the generator would be too far apart. Second, each would fall into a different two digit SIC category.*

Since the DEQ has an EPA-approved PSD program, it will be necessary for DEQ to make a case-by-case determination regarding "how far apart activities must be in order to be treated separately" for purposes of meeting the requirements of PSD.

Facts for this case are presented as follows. The operational areas under consideration, including the transportation links between them, are: 1) the Conda Phosphate Operations facility (CPO); 2) the commercial railroad between CPO and the tipple area; 3) the tipple area (which is part of the Mine); 4) the Nu-West controlled haul road between the tipple and the mining area and; 5) the Rasmussen Ridge Mine. The transportation distance between CPO and the tipple is 12 miles, the distance between the tipple and the mining area is approximately 8 miles, and the total distance between CPO and the Mine is approximately 20 miles. Note that a "private haul road constructed solely for the purpose of transporting ore from the mine to the processing plant", as indicated in the comments, does not exist. Lastly, based on the maps included in the application (DEIS) the straight line distance between CPO and the Mine is approximately 13 miles, and complex terrain encompassing at least three ridge lines separates the two facilities.

Typically, the rationale for aggregating facilities with synergistic operations is because of their aggregate impact on the airshed. However, in this case, the complex terrain between the two facilities means that each facility is impacting a different airshed. It is DEQ's determination that emissions to ambient air from CPO and from the Mine are unlikely to impact the same airshed.

A similar approach with regard to the term "adjacent" appears to have been taken by the Texas Natural Resource Conservation Commission (TNRCC), Air Permits Division, in a document titled *Definition of a Site, Draft*, March 2002 - "For NSR permitting purposes, contiguous or adjacent properties are considered to be separated by only an intervening road, railroad, right-of-way, waterway, or the like. Generally, properties located less than ¼ mile apart are considered contiguous or adjacent. The ¼ mile limit has been established based on consideration of air quality impacts in cases where emissions from multiple properties directly and measurably affected each other such that it is impossible to separate, differentiate, or detect ground level concentrations attributable to the properties separately."

The comments included a copy and references to the May 21, 1998 memo from EPA Region 8 to Utah DEQ. As noted in the memo, the Utah DEQ issued a determination for Great Salt Lake Minerals Corporation (GSLM) in which a pump station located 21.5 miles from the processing plant was a support facility to the plant (i.e., both units are part of the same "source"). However, on February 14, 2001, the Utah DEQ issued a letter which reversed this decision on the basis that the two activities are too far apart. The letter states "... it has been determined that the two locations do in fact represent two separate sources for the purposes of Title V and NSR/PSD permitting."

DEQ has determined that Nu-West's Rasmussen Ridge Mine facility and the Conda Phosphate Operations facility are not "contiguous or adjacent" to each other for purposes of applying the definition of the term "facility." These two facilities are too far apart and impact different airsheds. Since CPO and the Mine are not contiguous or adjacent, they cannot be considered to be "one facility" as defined by IDAPA 58.01.01.006.37. This case-by-case determination applies specifically to CPO and the Mine.

The issue of whether or not the Mine is a support facility to CPO was not addressed because the contiguous/adjacent part of the facility definition is not met. Since all three parts of the facility definition must be met, it is not necessary to address the other two parts of the definition (i.e., same industrial grouping/support facility and the issue of common control).

**Comment 15:** The proposed PTC fails to correctly address this issue. This has several important ramifications. Critically, this mine must be considered a modification of an existing "major" facility. This has several important ramifications. Thus, DEQ needs to be administering the development of the proposed PTC under different rules. This includes different permit application requirements (58.01.01.202.01(c)) and different permit requirements (58.01.01.205). In addition, DEQ must direct Nu-West to initiate a PSD review. As a result of these deficiencies, the proposed PTC cannot be finalized and issued.

**Response to 15:** As addressed in the previous response, the Nu-West Rasmussen Ridge Mine is not a support facility to the Agrium Conda Phosphate Operations facility, and it is also not a major facility by itself. Therefore, the major facility application and permitting requirements, which include PSD, do not apply.

**Comment 16:** Facility Description The Statement of Basis seems to state that the facility encompasses the South, Central and North mines and load out areas. Presumably, this description is based on information from Nu-West. This description is not consistent with the description of the facility that Nu-West has provided DEQ (and other agencies) in other forums. In the NEPA review for this mine, Nu-West defined the mine to DEQ per 58.01.11.400.06 as the Active Mineral Extraction Zone, which is basically the lease boundaries. Nu-West has specifically described the area not to include the south mine and portions of the central mine. In other parts of the NEPA, the haul roads are considered part of the facility. Since a significant amount of the fugitive emissions originate from the haul roads, it seems appropriate that these be included in the description of the facility. We can think of no instances where DEQ would allow a facility to claim a different location for air and water issues. DEQ needs to ensure that there is consistency in the description of the facility boundaries.

**Response to 16:** The NEPA process evaluates proposed projects from a big picture perspective, and for multiple media. Conversely, in the air-permitting forum, issues such as facility boundary are very specifically defined. For large projects such as this one, it is not at all unusual for facility boundaries in permitting actions to be different from information in NEPA documents and for water issues. There is no regulatory basis for facility boundaries to be the same for both water and air issues.

**Comment 17:** Facility / Area Classification The statement of basis fails to note that this facility has the potential to affect the air quality in a Class I area.

- Response to 17: In accordance with IDAPA 58.01.01.202.c.vi, only new major facilities or major modifications are required to provide an analysis of the impairment to visibility to a Federal Class I area. Since this PTC is for a minor modification, a Class I analysis is not required.
- Comment 18: **Reliance on former PTC to demonstrate compliance and in regard to net impacts**  
In 1995 DEQ issued Rhone-Poulenc a PTC to install diesel generators at the shop buildings that support the South and Central Mines. This PTC only addressed the generators and made no mention of fugitive emissions from mine related activities. In hindsight, this 1995 PTC was clearly deficient for it failed to address the fugitive mine emissions.
- Response to 18: In 1995, permitting practice was to not duplicate rule language in the permit. Rules such as IDAPA 58.01.01.650-651, *Rules for Control of Fugitive Dust*, still applied to the facility and compliance with the Rules was expected. In particular, please note that Permit to Construct General Provision D of the 1995 PTC states: "Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein."
- Comment 19: DEQ is interpreting the construction of this new mine, the North Rasmussen Ridge Mine, as a "modification" of an existing facility – the South and Central mines and the shop building that houses the onsite generators. In the statement of basis, DEQ states: "For the proposed North Rasmussen Ridge Mine operation, overall facility operations which generate fugitive dust emissions would remain similar to past operations." This logic culminates in DEQ assuming that this mine will have no net impact on air quality. This is evidenced in the statement of basis' Emissions Inventory (table 5.1), here DEQ states that there will be no annual emissions increases in PM<sub>10</sub>. However, the DEQ records contain absolutely no information from Nu-West that would allow DEQ to determine that the past, current and future operations would be similar. Neither the 1995 PTC application, technical memo or PTC itself contain any information about expected emissions of fugitive dust nor does the 2003 PTC application, technical memo or proposed PTC. DEQ has no information to support its claims of operational similarity and it has no information to support this conclusion regarding net impacts. Further, for the purposes of determining net impacts, DEQ must look at prior *permitted* emission in comparison to future permitted emissions. The fugitive PM<sub>10</sub> emission associated with the prior and current mining operations were never permitted (recall that the 1995 PTC does not address these emissions). As a result, DEQ must re-calculate the net impacts associated with this mine and integrate this information into all appropriate places. Failure to do so will violate DEQ guidance and reward those that either intentionally or unintentionally fail to secure proper permitting for facilities.
- Response to 19: In the permit application materials received by DEQ on September 12, 2003, the emission estimates which support the permit analysis represent "total" fugitive dust emissions from all sources at the facility, not just the change in emissions, or net impacts, associated with the proposed change in operations. Basing the analysis for the permit modification on total emissions instead of just the increase/change in emissions is a conservative approach. An analysis of net impacts and a look at prior permitted emissions in comparison to future permitted emissions (or past actual to future potential emissions) was not conducted because this permit action is not for a major facility or a major modification – for minor sources, fugitive emissions are not relevant to determination of major source status. Refer to the response to Comment No. 13 for additional details.

- Comment 20:** **Fugitive Dust Control Plan** The proposed permit seems to infer two separate and distinct realities: 1) that there is an approved plan ("the approved Fugitive Dust Control Plan is part of the terms and conditions of the permit" p.7); and, simultaneously, 2) that a plan must be submitted after the PTC is issued ("the initial Fugitive Dust Control plan shall be submitted to the department for review and approval no later than 60 days after the issuance of this permit" p.8). Which is it?
- Response to 20:** The *Rules for Control of Fugitive Dust*, IDAPA 58.01.01.650-651, do not explicitly require the permittee to develop, implement, or maintain a Fugitive Dust Control Plan, nor do the Rules require DEQ to approve a plan prior to use. This Plan requirement was added to the PTC as a reasonable permit condition in accordance with IDAPA 58.01.01.211.01 for the purpose of demonstrating compliance with IDAPA 58.01.01.650-651 and to demonstrate that the operating practices presented in the PTC application (e.g., applying water to roads), which form the basis of the permit, are being adhered to. Nu-West provided DEQ an initial draft of the Plan on July 22, 2003 (which was certified as part of the PTC application on September 12, 2003). DEQ used this draft to establish minimum requirements for a more detailed, final Dust Control Plan. This approach is consistent with the Rules and allows for flexibility to amend the Plan to address different conditions at the mine.
- Comment 21:** In the event that the copy of the plan dated 7/22/03 that DEQ provided to ICL (which was by the way not part of the public packet) is the "approved" plan... This plan lacks nearly all of the items specifically outlined by DEQ in the PTC as required elements of the Fugitive Dust Control Plan on pages 7 and 8 of the PTC. Specifically, there is no mention of: "specific, quantifiable minimum frequencies" for watering certain areas; "specific, quantifiable minimum frequencies" regarding the use of dust abatement chemicals; no discussion of procedures for minimizing drop heights; no discussion of procedures for minimizing dust formation during conveying operations; no discussion of training/orientation of employers regarding the plan. That this 7/22/03 abatement plan violates 58.01.01.650 et seq is self evident and affirmed by the lengthy list of mandatory requirements provided by DEQ in the PTC at pages 7 and 8. Clearly this plan is deficient and needs to be revisited by Nu-West to address the requirements outlined by DEQ and brought into compliance with 58.01.01.650 et seq prior to issuance. When an appropriate plan is developed it needs to be made available to the public for review prior to issuance of this PTC.
- Response to 21:** Refer to the responses provided for Comment Nos. 20 and 23. A copy of the Plan may be reviewed/obtained from the DEQ State Office or the Pocatello Regional Office at any time using the public records request process that is accessible from the DEQ website: <http://www.deq.state.id.us>. Comments on the Plan may be submitted to the DEQ prior to DEQ approval of the Plan.
- Comment 22:** As an additional comment, per 58.01.01.651.04, DEQ needs to ensure that haul trucks are covered to minimize dust emissions. In the 7/22/03 Fugitive Dust Control Plan, Nu-West states that the moisture of the ore (10% - 11%) aids in dust control. DEQ needs to be aware that the vast majority of trucks exiting the pit will be carrying waste material – not ore. As such, it is proper that these loads be covered.
- Response to 22:** When drafting the Fugitive Dust Control Plan permit requirements, the requirement for the "covering, when practical," of open bodied trucks per 58.01.01.651.04 was considered in addition to IDAPA 58.01.01.651 which states that "all reasonable precautions shall be taken to prevent PM from becoming airborne. In determining what

is reasonable, consideration will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of PM." With regard to the covering of trucks, the following additional factors were considered when determining what would be reasonable/practical: the travel distance for loaded waste rock trips will generally be less than one mile; vehicle speeds will be slow at approximately 10 mph in/near the pits and up to 25 mph over the distance between pits; and the distance to the top of the 90-ton haul truck beds is 25 feet, resulting in a safety risk for individuals to install the cover, particularly in the midst of heavy equipment operations and at night. For this particular waste rock hauling operation, it has been determined that covering trucks is not practical.

**Comment 23:**

In the event that there is currently no approved plan (or perhaps the 7/22/03 plan has been approved?) and DEQ is requiring that a plan be submitted to DEQ within 60 days of the issuance of this PTC... It is completely inappropriate for DEQ to use the 7/22/03 plan (for the reasons outlined above) as a placeholder for a legal Plan to emerge. It is completely inappropriate for DEQ to issue a permit that enshrines a dust abatement plan as a "part of the terms and conditions of the permit" (p.7), yet does not provide that Plan in the proposed PTC for the public to review. In essence, that is like issuing a permit that says "this condition to be filled in later." Clearly, permit conditions must be developed and made available to the public in advance of issuing a permit. The operation of this facility is likely to result in the annual release of hundreds of tons of fugitive PM<sub>10</sub>; the development of sufficient dust abatement plan is perhaps the most critical component of this permit to construct. It is inappropriate and illegal for DEQ to issue a PTC absent a sufficient dust abatement plan because the dust abatement plan is the permit condition that is required to comply with the requirements of the PTC as a whole.

**Response to 23:**

The comment does not substantiate why the approach for the Fugitive Dust Plan in this permit action is inappropriate. In most other permits, compliance with the fugitive dust rules is not specified even to this extent. In this permit, to ensure that fugitive emissions are reasonably minimized, DEQ has elected to establish minimum elements of a Fugitive Dust Plan. A Dust Plan which is external to the permit provides for flexibility in tailoring the Plan to facility conditions without the delay of permit review. In this manner, fugitive dust control can be maximized with minimal delay, while the public is assured of prudent dust control by the minimum Plan elements specified in the permit itself.

As noted earlier, the fugitive dust rules do not specify the minimum Plan elements. Rather, these elements have been arrived at during permit review. The comment has not advanced a substantiated argument that the minimum Plan elements specified in the permit are not adequately protective of air quality. Consequently, the use of a Fugitive Dust Plan is entirely appropriate.

**Comment 24:**

40 CFR 60 Subpart, NN DEQ incorrectly states that the North Rasmussen Ridge Mine does not utilize any of the facilities listed in 60.400(a)(2). The proposed mine is defined as a "Phosphate Rock Plant" and does include and utilize relevant features. As a result, the mine needs to comply with the New Source Performance Standards NSPS for Phosphate Rock Plants (40 CFR 60 Subpart, NN). DEQ notes that the proposed mine does meet the 60.401(a) definition of a Phosphate Rock Plant because it mines and screens phosphate ore. However, the proposed mine does make use of facilities that are used for ground rock handling and storage facilities (primarily at the screens and tipples). Thus, 60.400(a)(2) applies. As a result, 40 CFR 60 Subpart, NN applies to this facility and needs to be incorporated in the PTC.

**Response to 24:** The applicability of Part 60 Subpart NN has not changed from the original applicability determination, contained in the February 5, 1995 PTC Technical Memorandum. However, in the interest of addressing this comment, clarification is provided here.

*60.401(a): Phosphate rock plant means any plant which produces or prepares phosphate rock product by any or all of the following processes: mining, beneficiation, crushing, screening, cleaning, drying, calcining, and grinding." The Rasmussen Ridge Mine meets the definition of a "phosphate rock plant" since it produces/prepares phosphate rock by mining and screening.*

*60.401(f): Ground phosphate rock handling and storage system means a system which is used for the conveyance and storage of ground phosphate rock from grinders at phosphate rock plants." This term does not apply to the Rasmussen Ridge Mine since it does not utilize any "grinders."*

*60.400(a): The provisions of [Subpart NN] are applicable to the following affected facilities used in phosphate rock plants which have a maximum plant production capacity greater than [4 tons/hr]: dryers, calciners, grinders, and ground rock handling and storage facilities, except those facilities producing or preparing phosphate rock solely for consumption in elemental phosphorus production. Subpart NN does not apply to the Rasmussen Ridge Mine because it does not utilize any dryers, calciners, grinders, and ground rock handling and storage facilities.*

In conclusion, although the mine is a phosphate rock plant, no NSPS Subpart NN requirements apply to the operations at this facility.

**Responses to the comments received from the Idaho Conservation League and the Greater Yellowstone Coalition on October 14, 2003 are provided below:**

**Comment 25:** The information that Nu-West has recently submitted violates IDAPA 58.01.01.124 (Truth, Accuracy and Completeness of Documents) because, as discussed below, it contradicts itself. Clearly, Nu-West has submitted contradictory, and potentially inaccurate, information to DEQ.

**Response to 25:** As the comment does not specifically address what information is allegedly in violation of IDAPA 58.01.01.124, it is not possible to respond with any specificity. However, the DEQ has no reason to believe that the information submitted to DEQ by Nu-West is not true, accurate and complete, as required by IDAPA 58.01.01.124. Note that the last General Condition on page 1 of the PTC states: "This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200, et seq." If the DEQ determines that facility operation is not consistent with the application materials, then DEQ may take enforcement action.

**Comment 26:** The proposed permit is deficient, or is premised on deficiencies in the application and/or technical memo/statement of basis, in a number of critical areas. Issuance of this permit will violate the following Idaho air quality rules:

- 202.01(a); regarding required information in the application for a PTC for any new or modified stationary source or facility.
- 203.02; regarding demonstration that the stationary source or modification would not cause or significantly contribute to a violation of any NAAQS.



- 650 et seq; regarding the control of fugitive dust.

Response to 26: See the response to Comment No. 2.

**Comment 27:** Further, DEQ has failed to define the proposed North Rasmussen Ridge Mine as a support facility for Nu-West's Conda processing plant. This has significant consequences for permitting of both the mine and the processing plant and needs to be addressed. As a result, issuance of this permit will violate the following Idaho air quality rules:

- 202.01(c); regarding required information in the application for a PTC for any new or modified major facility in an attainment area.
- 205 et seq; regarding permit requirements for any new or modified major facility in an attainment area.
- 225; regarding PTC processing fees. Modification of a major source is \$10,000.

Additional state and federal air quality rules are likely violated here as well.

Response to 27: See the responses to Comment Nos. 14 and 15.

**Comment 28:** As a result of the deficiencies outlined in our attached comments, we are unable to conduct a thorough analysis of this proposed permit. We believe that the only acceptable course of action is for DEQ to request that Nu-West provide the required information, that the proposed permit be re-crafted to incorporate this information and that the public be given another opportunity to review and comment on this permit prior to issuance to Nu-West.

Response to 28: See the response to Comment No. 4. Based on the information provided by the applicant, the DEQ was able to conduct a permit review as required by IDAPA 58.01.01.200 et seq. It is not clear what additional analyses the commenter is proposing to conduct.

**Comment 29:** Continued Failure to include critical information in application, statement of basis and permit. The additional information that Agrium provided to DEQ (copies of the Bureau of Land Management's DEIS, FEIS and ROD and the September 12th, 2003 letter from MFG Inc. to DEQ/Mr. Ken Hanna) fails to address the deficiencies that we have previously outlined.

Please review our previous comments on this matter for a discussion of the legal reasons why certain information is required and a discussion of the deficiencies of the application and draft permit.

Response to 29: The PTC application materials that DEQ received from Nu-West on September 12, 2003 meets the application requirements of IDAPA 58.01.01.202, and allowed the DEQ to conduct a permit review.

**Comment 30:** In regards to the additional information added to the record, Agrium has still not provided the required information in IDAPA 58.01.01.202(a) i and ii. Specifically:

- 1) The application still lacks any adequate drawings showing the design of the facility.

The Statement of Basis portrays this DEQ permitting action as a modification of an existing permit and describes the facility as a facility that has grown over time to include the previous, current and future mines. This description is not consistent with the description of the facility provided by Agrium to DEQ via the BLM's DEIS document. In the DEIS there are various maps that may be relevant, but it is not at all clear what the boundary for the facility will be. For instance, is the map at DEIS 2-11 labeled "Proposed Action Facility Layout" the official boundaries for this proposed action? If it is, then DEQ needs to amend the draft permit to reflect this altered boundary line.

Response to 30:

Air permits rarely specify the facility boundary as a permit condition – there are exceptions if, under DEQ's discretion, air quality objectives are advanced by the inclusion of specific permit conditions pertaining to the ambient air boundary. As necessary, facility boundary issues are addressed in the underlying analysis – primarily because of the need to specify receptor spacing for modeling. As has already been noted, the DEQ has already indicated that conducting ambient air dispersion analyses are not appropriate for this facility. The DEIS which was submitted to the DEQ under certification provides adequate drawings. The comment does not specify how a boundary line is specifically required under IDAPA 58.01.01.200 et seq.

Comment 31:

Additionally, the application and DEQ work products do not adequately address inclusion (or exclusion) of the haul road system in the facility boundary. The road system is a significant contributor of PM10 pollution (as identified in the MFG documents). However, the BLM DEIS that Agrium submitted, assumedly to clarify site boundaries, does not provide accurate information about the location of the roads.

This is critically important to us because we would very much like to analyze the proposed action to determine whether or not the NAAQS will be violated at the site/facility design/mapping information.

Response to 31:

As has been noted in the response to Comment No. 13, conducting a modeling analysis is not necessary for this facility. However, if the commenter insists on conducting a questionable modeling analysis, the drawings contained in the application materials (i.e. the DEIS), the DEQ's December 31, 2002 *State of Idaho Air Quality Modeling Guideline*, and guidance documents from the EPA provide enough material to conduct such an analysis.

Comment 32:

2) The application still lacks sufficient information regarding the anticipated amount of fugitive emissions of criteria pollutants that will result from the development of this facility.

MFG provided DEQ with a document purported to be an "Emission Inventory" for the proposed mine (see attachment #2). Agrium also provided DEQ with the BLM DEIS for the mine. The DEIS also contains a summary of total annual emissions (DEIS p.4-14) (see attachment #3).

We are greatly concerned by the lack of consistency between these two submittals. The MFG document states that the annual PM10 for the project will be 207 tons/yr. The DEIS contradicts this and states that total PM10 for the project will be 600.08 tons/yr. This is a very significant difference.

Pursuant to IDAPA 58.01.01.124 (Truth, Accuracy and Completeness of Documents) Agrium has a responsibility to provide DEQ with accurate information regarding the emission of pollutants. Given the current Agrium

**submissions on this matter it is apparent that Agrium is in violation of this rule.**

**Response to 32:**

The annual estimate for mining fugitive PM<sub>10</sub> emissions, as given in the DEIS, is 515.18 tons/yr. The potential to emit estimate for fugitive dust PM<sub>10</sub> provided in the PTC application (as described in the letter DEQ received on September 12, 2003) is 257 tons/yr. The emission estimates provided for the PTC application were reviewed, found to be consistent with DEQ's methods and procedures, and found to meet the PTC application requirements.

Although not a necessary part of the permit review, DEQ did look into the reasons for the apparent discrepancy between estimates of fugitive emissions. Several reasons were identified: (1) There were changes in project details. (2) Emissions estimating tools used in the DEIS were based on general emission factors for a western surface coal mine, whereas the PTC estimates used emission factors that were based on site-specific parameters. (3) The DEIS used an assumption of 80 percent PM<sub>10</sub> control efficiency for roads (e.g., watering, chemical dust suppressants, etc.), whereas the PTC estimate used 90 percent. Nu-West is not in violation of IDAPA 58.01.01.124.

**Comment 33:**

**3) The application still lacks adequate information regarding the amount of secondary emissions associated with this facility.**

MFG's letter September 12th to DEQ states that "We do not believe operation of the Rasmussen Ridge Mine generates any secondary emissions, as defined in IDAPA 58.01.01.007," [the definition was reprinted]. We disagree. Clearly, the operation of the mine will result in emissions that fall into this category. For instance, the self-contained generators for lighting and the non-road mining and hauling equipment are among the many sources of potential secondary emissions at the facility.

**These emissions are occurring as a result of the operation of the facility. They are specific, well defined and quantifiable. They occur in the same general area.**

**The BLM DEIS provides "Total Annual Emission" totals for secondary emissions. However, there is no information about how these numbers were generated. Providing totals without the specific data that allows a review to reconstruct the analysis is insufficient in its own right. And, taken in consideration with the discrepancies noted regarding PM10 estimates between the DEIS and the MFG inventory, we are concerned that the data in the DEIS may not be factually correct.**

**Response to 33:**

The self-contained generators used for lighting pre-date the new mine area. As such, they are existing sources rather than new sources of secondary emissions. The existing self-contained generators were previously exempted through the PTC exemption requirements of IDAPA 58.01.01.220-223, as outlined in Section 1 of the PTC. Emissions from the non-road mining and hauling equipment are also not addressed as secondary emissions for the new mine area, as these activities existed to support the prior mine area. Also, as nonroad engines, emissions from these vehicles are not subject to permitting. Fugitive emissions from the haul roads have already been addressed in the application materials and permit review.

**Comment 34:** Continued failure to demonstrate compliance with National Ambient Air Quality Standards (NAAQS)

The recent submissions by Agrium still do not provide sufficient information in the application, statement of basis, or the proposed permit regarding the anticipated emissions from the mining and hauling activities portion of this facility, a work schedule (to determine the temporal distribution of the emissions) and a sufficient map or diagram of the facility to determine if the facility will (or will not) violate the National Ambient Air Quality Standards at the fence line.

As stated in our previous comments, we are interested in conducting a thorough analysis of the impacts that this project will have on the air quality in the area surrounding the mine; we are especially interested in determining whether or not this facility will violate NAAQS at the fence line. As a result of missing information in the company's PTC application we are unable to conduct this analysis.

As we noted in our previous comments, we are troubled by the fact that DEQ has not ascertained for itself, or required Agrium to demonstrate, that the proposed project will not violate NAAQS. The new material added to the record does not satisfy this concern. There is no information in the record that demonstrates that any modeling has been done that would allow DEQ to determine whether or not the fugitive PM10 emissions or the secondary emissions associated with the project would cause or significantly contribute to a violation of any ambient air quality standard.

Issuance of a PTC by DEQ without ensuring that this mine [which is a PTC modification and a stationary source] will not cause or significantly contribute to a NAAQS violation is in violation of DEQ rules. [a copy of IDAPA 58.01.01.203.02 was reprinted].

The proposed permit is in violation of 58.01.01.203.02 and, thus, cannot be finalized.

**Response to 34:** See responses to Comment Nos. 12 and 13.

**Responses to the comments received from MFG on September 22, 2003 are provided below:**

**Comment 35:** Attached is a revised and enhanced fugitive dust control plan for the Rasmussen Ridge Mine. Specifically, the draft plan we submitted earlier this summer has been revised to include the additional elements identified in Condition 3.3 of the draft PTC. On behalf of Agrium, I propose that DEQ endorse this revised Plan as the required Fugitive Dust Control Plan required in Condition 3.3. The final PTC may then incorporate this revised fugitive dust plan as an attachment, and the PTC requirements for the development of a plan may be deleted.

**Response to 35:** The requirements in permit condition 3.3 for development and approval of the plan were not changed; refer to the response to Comment Number 20. Review and approval of the Plan will be completed as specified in permit condition 3.3. This action will be completed by the DEQ after issuance of a PTC.

**Responses to the comments received from Nu West on October 10, 2003 (as presented in a letter from MFG received on October 7, 2003) are provided below:**

**Comment 36:** In the October 10, 2003 letter, Nu-West states: "At the request of IDEQ, our consultant MFG, on behalf of Agrium, by letter dated October 7, 2003, has provided certain responses and related attachments to IDEQ in order to clarify and address the operations at the mine site."

**Response to 36:** The information provided regarding the project is noted. No specific questions were raised, therefore, no responses are provided.

**Responses to the comment received from Nu-West on October 10, 2003 are provided below:**

**Comment 37:** A revised copy of the Fugitive Dust Control Plan for the Rasmussen Ridge Mining Project was faxed to DEQ.

**Response to 37:** Refer to the response to comment no. 35.

**Responses to the comments received from Davis, Graham & Stubbs LLP on October 17, 2003 are provided below:**

**Comment 38:** Re: P-020327, Nu-West Industries, Inc. Rasmussen Ridge Mine proposed revised Permit to Construct response to supplemental comments of ICL.

**Response to 38:** As the letter was received after the close of the public comment period, DEQ is not providing specific responses to these comments. However, the letter is included along with the other comments received as part of the public record.